

# Entrepreneurship and Management – 18CS71

## Unit - I

**Management:** Introduction, nature and characteristics of Management, Scope and Functional areas of management, Levels of management.

**Planning:** Nature, importance and purpose of planning process, Types of plans, Decision making, Importance of planning, steps in planning

**Organizing:** Nature and purpose of organization, Principles of organization, Types of organization, Span of control.

**Self-learning topics:** Management as a science, art of profession

## Unit - II

**Staffing:** Nature and importance of staffing, Process of Selection & Recruitment, Training Methods.

**Directing:** Meaning and nature of directing, Leadership styles, Motivation Theories, Communication-Meaning and importance.

**Controlling:** Meaning and steps in controlling, Essentials of a sound control system, Methods of establishing control.

## Unit - III

**Entrepreneur:** Meaning of entrepreneur: Evolution of the concept: Functions of an Entrepreneur, Types of Entrepreneur, Concept of Entrepreneurship, Evolution of Entrepreneurship, The Entrepreneurial Culture and Stages in entrepreneurial process.

**Creativity and Innovation:** Creativity, Source of New Idea, Ideas into Opportunities, Creative Problem Solving: Heuristics, Brainstorming, Synectics, Significance of Intellectual Property Rights.

**Self-learning topics:** Case studies of Entrepreneurs

## Unit - IV

**Micro, Small and Medium Enterprises [MSMEs] and Institutional Support:** Business environment in India, Role of MSMEs, Government policies towards MSMEs, Impact of Liberalization, Privatization and Globalization on MSMEs.

**Institutional support:** NSIC, TECKSOK, KIADB, KSSIDC, SIDBI; KSFC

**Self-learning topics:** Make in India, Start Up India, Digital India

## Unit - V

**Preparation of project:** Meaning of project, project identification, project selection, project report, need and significance of project report, contents, formulation, guidelines by planning commission for project report.

**Enterprise Resource Planning:** Meaning and Importance- ERP and Functional areas of Management – Marketing / Sales- Supply Chain Management – Finance and Accounting – Human Resources – Types of reports and methods of report generation

# Network Programming – 18CS72

## Unit – I

**Introduction:** Introduction, Client/server communication, OSI Model, BSD Networking history, Test Networks and Hosts, Unix Standards, 64-bit architectures.

**Transport Layer:** TCP, UDP and SCTP, TCP Connection Establishment and Termination.

**Self learning topics:** TCP/IP Protocols in nut shell.

## Unit – II

**Sockets Introduction:** Introduction, Socket Address Structures, Value-Result Arguments, Byte Ordering and Manipulation Functions.

**Elementary TCP Sockets:** socket, connect, bind, listen, accept, fork and exec, Concurrent Server design, getsockname and getpeername functions.

**Self learning topics:** TCP Echo Client/Server Functions.

## Unit – III

**Elementary UDP Sockets:** recvfrom and sendto Functions, UDP Echo Client/Server- main, dg\_echo and dg\_cli Functions, Lost Datagrams, Verifying received Responses, Server Not Running, connect Function with UDP, Lack of Flow control with UDP, Determining Outgoing Interface with UDP, TCP and UDP Echo Server using select.

**Elementary SCTP Sockets:** Interface Models, shutdown function, Notifications.

**Self learning topics:** STCP One-to-Many-Style Streaming Echo Client and Server main Functions.

## Unit – IV

### Advanced Sockets 1

**Ipv4 and IPv6 Interoperability:** IPv4 Client and IPv6 Server, IPV6 Client ad IPv4 Server, IPv6 Address-Testing Macros, Source Code Portability

**Daemon Processes:** syslogd Daemon , syslog Function.

**Self learning topics:** daemon\_init Function, inetd Daemon daemon\_inetd Function.

## Unit – V

### Advanced Sockets 2

**Broadcasting:** Introduction, Broadcast Addresses, Unicast vs Broadcast, dg\_cli Function using Broadcasting, Race Conditions.

**Multicasting:** Introduction, Multicast Addresses, Multicast vs Broadcast on a LAN, Multicast on a WAN, Source-Specific Multicast.

**Self learning topics:** Multicast Socket Options , SNTP

# Distributed Computing – 18CS73

## Unit – I

**Characterization of Distributed Systems:** Introduction, Examples of Distributed Systems, Challenges: Heterogeneity, Openness, Security, Scalability, Failure Handling.

**System Model:** Architectural Models, Fundamental models.

**Self-learning topics:** Security Models

## Unit – II

**Inter Process Communication:** Introduction, API for Internet Protocols, External Data Representation and Marshalling, Client – Server Communication.

**Distributed Object and RMI:** Introduction, Communication between Distributed Objects, RPC, Events and Notifications.

## Unit – III

**Distributed File System:** Introduction, File Service architecture.

**Security in distributed systems:** Introduction, Overview of security techniques: Cryptography, Certificates, Access control. Cryptographic Algo: Symmetric: Ex Substitution algo. , Asymmetric: RSA.

## Unit – IV

**Time and Global States:** Introduction, Clocks, events and process status, Synchronizing physical clocks, Logical time and logical clocks, Global states.

**Coordination and Agreement:** Introduction, Distributed mutual exclusion, Elections.

## Unit – V

**Introduction to Cloud Computing:** Introduction, Network Centric computing and Network Centric Content, Peer to Peer Systems, Cloud Computing: An old idea Whose Time has Come,

**Cloud Computing:** Delivery Models and Services, Ethical Issues in Cloud Computing, Cloud Vulnerabilities, Major Challenges Faced by Cloud Computing.

**Self-learning topics:** Case Studies: Amazon Web Studies

# **Network Programming Laboratory – 18CSL77**

## **List of experiments**

1. Implementing IPC using Pipes and message queues.
2. Implementing client server communication using socket programming that uses connection oriented protocol at transport layer.
3. Implement the distance vector routing algorithm
4. Using WIRESHARK observe the data transferred in client server communication using UDP and identify the UDP datagram.
5. Using WIRESHARK analyze three way handshaking connection establishment, data transfer and connection termination in client server communication using TCP.
6. Simulate a Full duplex connection in an wired network using NS3.
7. Simulate a simple Wireless UDP application using NS3.
8. Simulate a simple 5G Network application using NS3.
9. Understanding the working of Ipv6 in Low power lossy network
10. Understanding the working of IoT routing using RPL protocol

# **Mobile Application Development Laboratory – 18CSL78**

## **List of experiments**

1. Develop an application that uses GUI components, Font and Colors.
2. Develop an application that uses Layout Managers and event listeners.
3. Develop a native calculator application.
4. Develop an application that makes use of database.
5. Develop an application that makes use of notification.